Let's talk about Failures: Why was the Game for Children not a Success?

Christiane Moser, Manfred Tscheligi
ICT&S Center,
University of Salzburg
{christiane.moser2, manfred.tscheligi}@sbg.ac.at

Bieke Zaman
CUO | Social Spaces, iMinds
bieke.zaman@soc.kuleuven.be

Vero Vanden Abeele
e-Media Lab, GROUP T – Leuven Engineering College/Affiliated with CUO KU Leuven
vero.vanden.abeele@groept.be

Luc Geurts
e-Media Lab, GROUP T – Leuven Engineering College/Affiliated with ESAT KU Leuven
luc.geurts@groept.be

Mieke Vandewaetere
CIP&T, KU Leuven
iMinds/ITEC KU Leuven-KULAK
mieke.vandewaetere@kuleuven-kulak.be

Panos Markopoulos
Eindhoven University of Technology
P.Markopoulos@tue.nl

Peta Wyeth
Queensland University of Technology
peta.wyeth@qut.edu.au

Jörg Hofstätter
ovos GmbH
jh@ovos.at

CHI 2013 Extended Abstracts, April 27–May 2, 2013, Paris, France.
ACM 978-1-4503-1952-2/13/04.

Abstract
A significant proportion of research in the field of human-computer interaction has been devoted to game design. Yet, a multitude of good ideas and enthusiastic game design initiatives exist, where the games never see the light of day. Unfortunately, the causes of these failures remain often unexplored and unpublished. The challenges faced by researchers and practitioners are particularly complex when designing games for special target groups, such as children, or for a serious purpose. The HCI community would benefit from a discussion on these issues in order to avoid researchers and practitioners to repeat mistakes. We want to learn from projects that started with a promising idea, but failed or faced severe challenges. This workshop will be the first at CHI focusing on 'failed game projects'. In particular, workshop participants are encouraged to discuss issues that typically received little attention in publications and hereby contribute to the discussion on failures in the design, development and evaluation of games for and or with children. As a result, the community will benefit from these insights and lessons-learned, which will enhance the design of future (serious) games with/for children.

Author Keywords
Failure; Challenges; (Serious) Games; Development; Design; Evaluation; Children;

ACM Classification Keywords
H.5.m [Information interfaces and presentation] (e.g., HCI): Miscellaneous.

Introduction

The game industry has been expanding exponentially in the past decades, mainly by making games more appealing to a wider audience. Initially, computer games were designed for the mass market. Nowadays, the game market has started to attract new audiences with different needs and skills. This resulted in a rapidly growing new generation of games with a serious purpose and real world relevance, beyond pure entertainment, e.g., to raise awareness, to influence attitudes and behavior, to transfer educational content or train professional competences.

However, many of the 'serious' games for children have been criticized for being unable to achieve the goal of offering a compelling game experience (e.g., [1], [5], [7]). From the perspective of young game players, certainly when playing voluntary, gaming is an end in itself rather than a vehicle to learn. Child learners should enjoy playing the game for the activity itself. To realize this, the player should perceive the game as a fun and engaging activity rather than an artifact that is used to obtain an extrinsic serious goal.

In order to develop a serious game that is both fun to play and effective in reaching its serious goals, domain experts such as teachers, coaches, therapists, counselors, etc. and game designers need to collaborate and incrementally work out the design idea. Player-centered design has mainly been advocated as involving players in play tests from the very moment that the first prototypes have been created [8]. Additionally, children can act as users (e.g., [3]), informants (e.g., [8]), and design partners (e.g., [2]). Even though each role provides another level of engagement, such active participation can create challenges in, and add complexity to, the design process.

Khaled and Ingram [4] illustrate the inherently messy nature and complex process of serious game design as a practice (in terms of project organization, technology, domain knowledge, user research, and game design being essential for a successful serious game). In 1983, Schön proposed the reflective practitioner perspective [10], which has since been widely embraced by the design community. However, present literature gives less insight into the complex process of the evolution of serious games and its challenges. For example, design case descriptions do not convey the type of reflection on action that could help avoid failures. Consequently, mistakes are often repeated, as researcher cannot benefit from the insights or learning of others.

In this workshop we want to learn from projects that started with a promising idea for a game or a serious game, but that failed or faced severe challenges. Such failures are rarely discussed in the CHI community and, therefore, our workshop encourages participants to identify and examine the key issues that typically lead to these failures. The purpose of the workshop is to obtain a collection of lessons learned, reflections and guidelines addressing different game design phases (e.g., requirements analysis, conceptualization, design, development, deployment and validation). The outcome of the workshop should be a design resource for future efforts and valuable guidance in the complex process of designing serious games with/for children.

Topics of Interest & Objectives

This one-day workshop aims to bring together a diverse community of researchers and practitioners working in the area of game development with/for children. It addresses, but is not limited to, the following topics:

- *Failures and challenges*, e.g., experienced when developing (serious) games for children, in contrast to *success stories*;
- *Methodological challenges and benefits*, e.g., to get the different stakeholders involved as users, testers, informants and design partners; to validate the (serious) game;
- *Management issues* related to, e.g., organizing or structuring the involvement of the different stakeholders; failure guidelines or patterns;

These topics can be completed by a discussion on lessons learned and take-away messages addressing the outputs of the workshop. The workshop discussions will be focused on the following suggested different phases of the design process of a serious game:

- *Requirements analysis*, e.g., how to analyze the need of the different stakeholders regarding the serious goal of the game; how to communicate the insights to the next phase;
- *Conceptualization*, e.g., how to bring the expertise of several stakeholders together; how to develop a promising serious game idea;
- *Design*, e.g., why not, why and how to involve the stakeholders (which methods or approaches work not or best for the different stakeholders);
- *Development*, e.g., what are technological challenges; how to include data mining such as learning analytics; how to (iteratively) evaluate the game in the development process;
- *Deployment*, e.g., what are challenges of context-of-use; what are barriers for adoption by stakeholders (how to bring games in the class room?); what role plays marketing;
- *Validation*, e.g., how to validate the effectiveness of the serious game; what happens if the game was very promising during the conceptualization, design and evaluations, but is not effective regarding the serious goal.

Workshop Format

This is a one-day workshop with break-out sessions, alternated with moderated group discussions. The workshop will start with an introduction to the workshop topic; followed by short anecdotes and stories about failures to get familiar with the participants and the topic they're working on, allowing ample time for discussion afterwards. Afterwards, the organizers present common themes of the submitted papers in order to form different groups of participants.

The participants will discuss the different stages of the game development (e.g., requirements analysis, conceptualization, design, development, deployment and validation) and list failures or challenges on a poster during the first break-out session. After the lunch break, the groups come back together to abstract common dynamics surrounding challenges and failures, and generate lessons learned and guidelines for the future development of serious game with/for children. The last part of the workshop will be a presentation of the group results with the possibility to discuss them with all participants. Afterwards, a summary of the

topics and conclusions will be given by the workshop organizers and possible follow ups will be defined.

Participation

Workshop candidates are requested to send a position paper (formatted according to ACM SIGCHI Publications Format and should not exceed 4 pages) about research they have been involved with via email to christiane.moser2@sbg.ac.at. Insightful papers about the topics fostering an interdisciplinary perspective are welcomed. Papers will be reviewed by the workshop organizers and selected according to their significance, the quality of the presentation, as well as the potential to stimulate reflection and discussion throughout the workshop.

Deadlines

January 4th, 2013. Workshop submission deadline.
February 1st, 2013. Feedback to authors.
April 27th, 2013. Workshop at CHI2013

Dissemination

Before the workshop accepted papers will be made available on the workshop's website (with agreement of the participants), the summarized results of the workshop will be published and further discussion about the topic will be stimulated in a wider audience. Based on the workshop results, the workshop organizers will send out a new call for papers for a special issue in the Journal of Child-Computer Interaction.

Acknowledgements

This proposal is supported by the Austrian project "AIR – Advanced Interface Research" funded by the Austrian Research Promotion Agency (FFG), the ZIT Center for Innovation and Technology and the province of Salzburg under contract number 825345 and the Games@School project, funded by iMinds, Flanders (Belgium).

References

[1] Egenfeldt-Nielsen, S. 2005. Beyond Edutainment: Exploring the Educational Potential of Computer Games. Doctoral Thesis, IT-University of Copenhagen. Denmark.

[2] Guha, M., Druin, A., Chipman, G., Fails, J., Simms, S., and Farber, A. 2005. Working with young children as technology design partners. *Communications of the ACM 48*, 1, 39-42.

[3] Kaplan, N., Chisik, Y., and Levy, D. 2006. Reading in the wild: sociable literacy in practice. In *Proc. IDC 2006*, ACM Press, 97-104.

[4] Khaled, R. and Ingram, G. 2012. Tales from the front lines of a large-scale serious game project. In *Proc. CHI '12*. ACM, New York, NY, USA, 69-78.

[5] Kirriemuir, J. and McFarlane. 2004. A Literature review in games and learning. Futurelab.

[6] Pagulayan, R.J., Keeker, K., Wixon, D., Romero, R.L., and Fuller, T. 2003. User-centered design in games. In *The human-computer interaction handbook: fundamentals, evolving technologies and emerging applications*. L. Erlbaum Associates Inc., 883-906.

[7] Papert, S. 1998. Does Easy Do It? Children, Games, and Learning. *Game Developer*, 87-88.

[8] Read, J., Gregory, P., MacFarlane, S., McManus, B., Gray, P., and Patel, R. 2002. An investigation of participatory design with children-informant, balanced and facilitated design. In *Proc. IDC* 2002, 53-64.

[9] Salen, K. and Zimmerman, E. 2003. Rules of Play: Game Design Fundamentals. MIT Press.

[10] Schön, D. A. 1983. The Reflective Practitioner: How Professionals Think in Action. Basic Books.